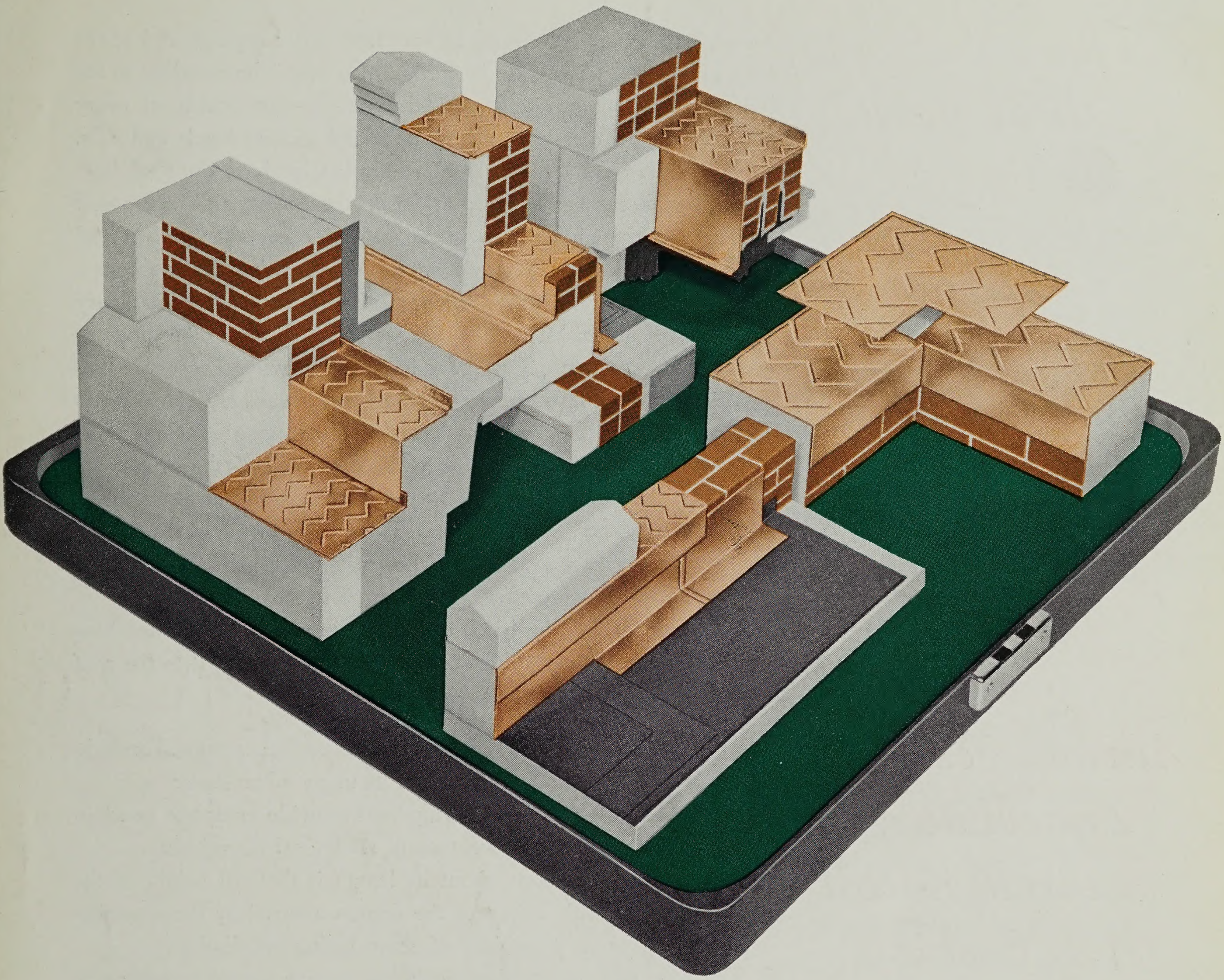
PUBLICATION C-28



ANACONDA *through-wall flashing*

A.I.A FILE No. 12-H-I

The American Brass Company
Waterbury 20, Connecticut

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Where is through-wall flashing used?

Through-wall flashing should be installed under copings and at the base of parapet walls. It is important also that it be installed in the building walls at frequent vertical intervals—preferably at every floor, and at all openings such as door and window-heads and sills.

The greatest danger of water penetration is above the roof line. There, with both faces exposed to the weather, either side of the wall is subjected to driving rain while, on the other side, the partial vacuum which is always present in the lee of a wind-break, exerts a powerful suction which aids the natural capillarity of the masonry in absorbing water. Meanwhile, the water which enters the joints in the coping flows into the masonry below by gravity. The water thus accumulated gradually seeps downward and inward until the saturation point of the masonry is reached. This accumulation of water flows off both faces of the wall to the detriment of the supporting structure, and will eventually penetrate to the interior of the building to disfigure plaster and decorations. The outside of the wall will also suffer in appearance through the precipitation of mineral salts resulting in a blemishing effect known as efflorescence.

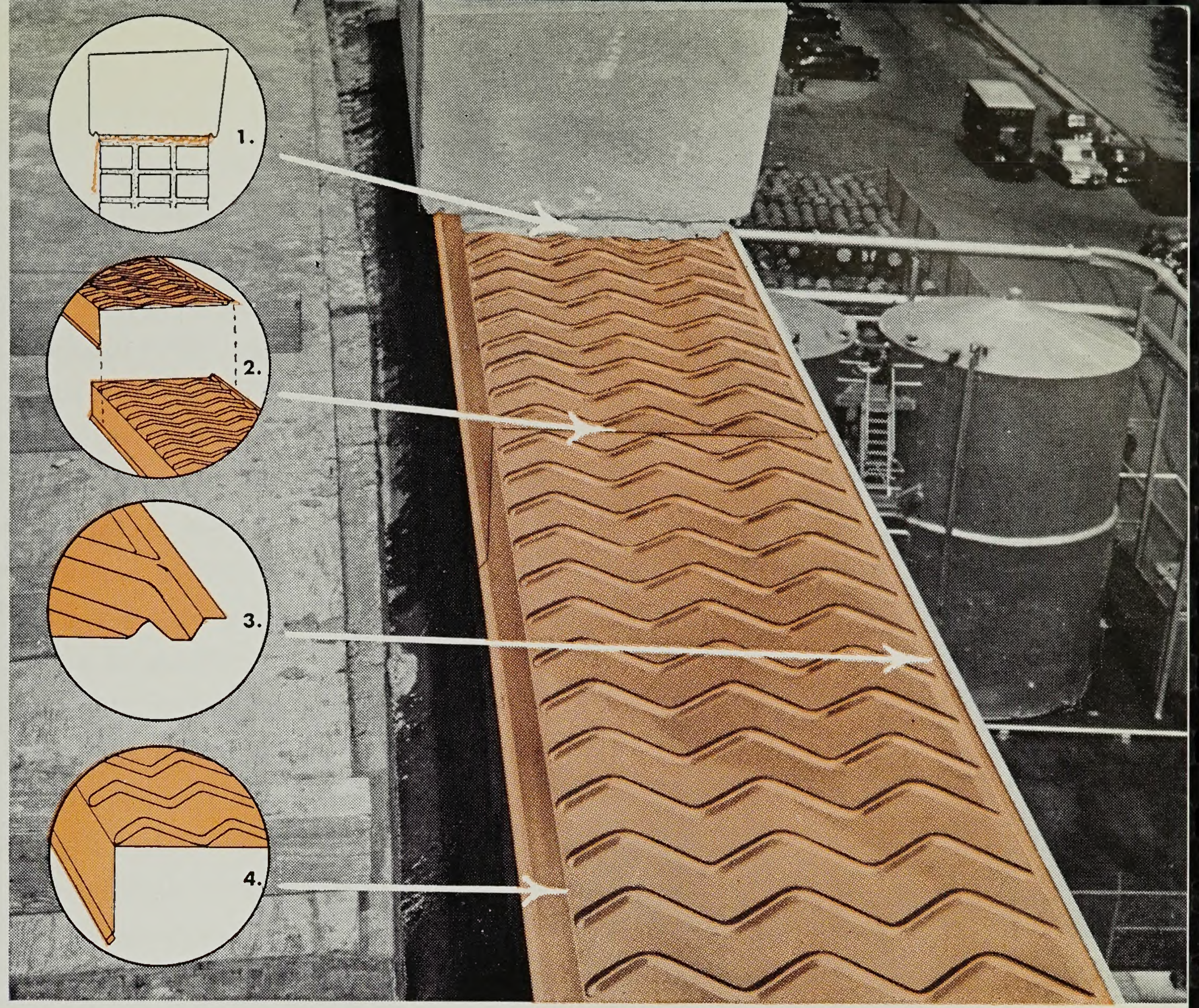
Through-wall flashing installed under the coping and at the base of the parapet intercepts this accumulation and diverts it to the roof or outside face of the wall as desired.

Advantages of Anaconda through-wall flashing

Many architects and contractors who have used Anaconda Through-Wall Flashing are enthusiastic about its many advantages:

1. The 7/32″ high zig-zag corrugations provide complete bond in the mortar and equal resistance in all lateral directions.
2. The integral dam throughout its length is the full height of the corrugations. This height of the dam is assured by the stamping die, reducing the possibility of error during installation.
3. The dam and corrugations combine to give complete assurance of drainage in the desired direction. This flashing will drain itself dry on a level bed, reducing to a minimum the possibility of wet walls and heaving by frost.
4. The flat selvage permits neat, sharp bends for counter-flashing or locking to adjacent sheet metal without distorting the flashing or inhibiting free drainage. Bends can be made on the job or in the shop with a regular bending brake.
5. Anaconda Through-Wall Flashing is easily locked endwise, even with the selvage preformed, merely by nesting one or two corrugations. Such joints are water-tight because water will not rise over

COVER: Miniature model used to demonstrate a few of the many applications of Anaconda Through-Wall Flashing.



1. NO LATERAL MOVEMENT

2. WATER-TIGHT LAP JOINT

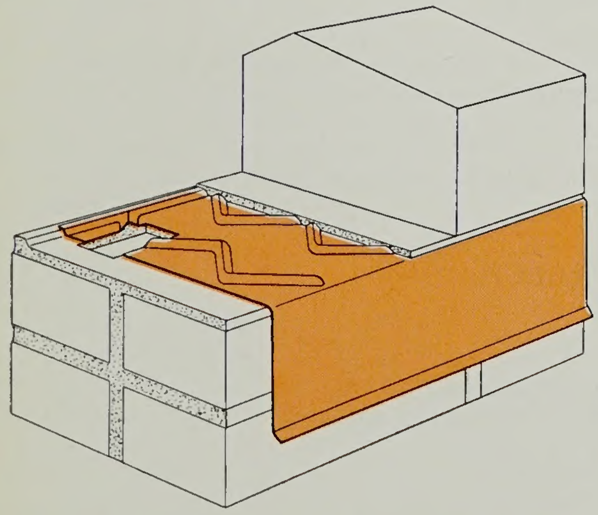
3. INTEGRAL DAM

4. SMOOTH SELVAGE FOR COUNTER- FLASHING

the corrugations. If desired, the joints can be easily soldered because of the over-lapping flat surfaces.

6. As shown in the accompanying illustration, the flashing is laid on a mortar bed with the corrugations up and positioned so that the dam side of the flashing with its tongue is placed within 1/4″ of the face of the wall. This will provide sufficient bed for pointing the joint with mortar so that it will not chip out. Thus, the Anaconda Flashing protects more of the wet portion of the wall than flashings which require turning back the metal to form a dam. Note that the flashing is worked down on the mortar bed so that the concave sides of the corrugations are filled with mortar. A bed of mortar is spread on top of the flashing before the coping, parapet or other wall materials are laid in place.

Anaconda Through-Wall Flashing is efficient, positive and durable, yet relatively inexpensive. It is readily adaptable to practically every masonry condition. The principal feature of its design consists of a series of zig-zag ridges 7/32″ high intersected at one end by a 7/32″ longitudinal ridge which acts as a dam, causing any accumulation of water to flow to the opposite edge or face of the wall.

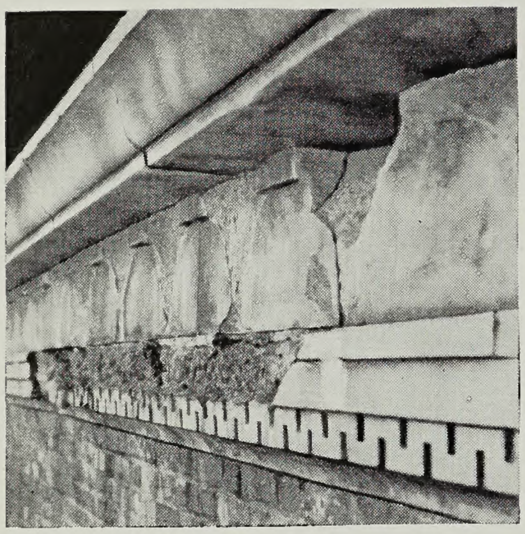


The zig-zag ridges prevent lateral movement in any direction. The possibility of vertical movement may be disregarded as a properly designed masonry wall has its mass and weight so proportioned in relation to wind and other forces that uplift does not occur under any normal condition except as a result of heaving by frost which, if of sufficient force to cause vertical movement of the wall or coping, would be sufficient to break the bond between masonry, mortar and flashing of any design. Actually, Anaconda Through-Wall Flashing assures minimum risk of heaving by frost as it is so designed that it will drain itself dry on a level bed.

This flashing, available in a variety of types and sizes as shown in the sketches on pages 8 and 9, is made regularly of standard 16-ounce Anaconda Copper, either plain or lead coated as required. When so specified it can be furnished in 10-ounce weight for less exacting requirements, such as use within the wall where no counter-flashing selvage is needed; or flashing can be furnished in 20-ounce weight or heavier where conditions warrant it.

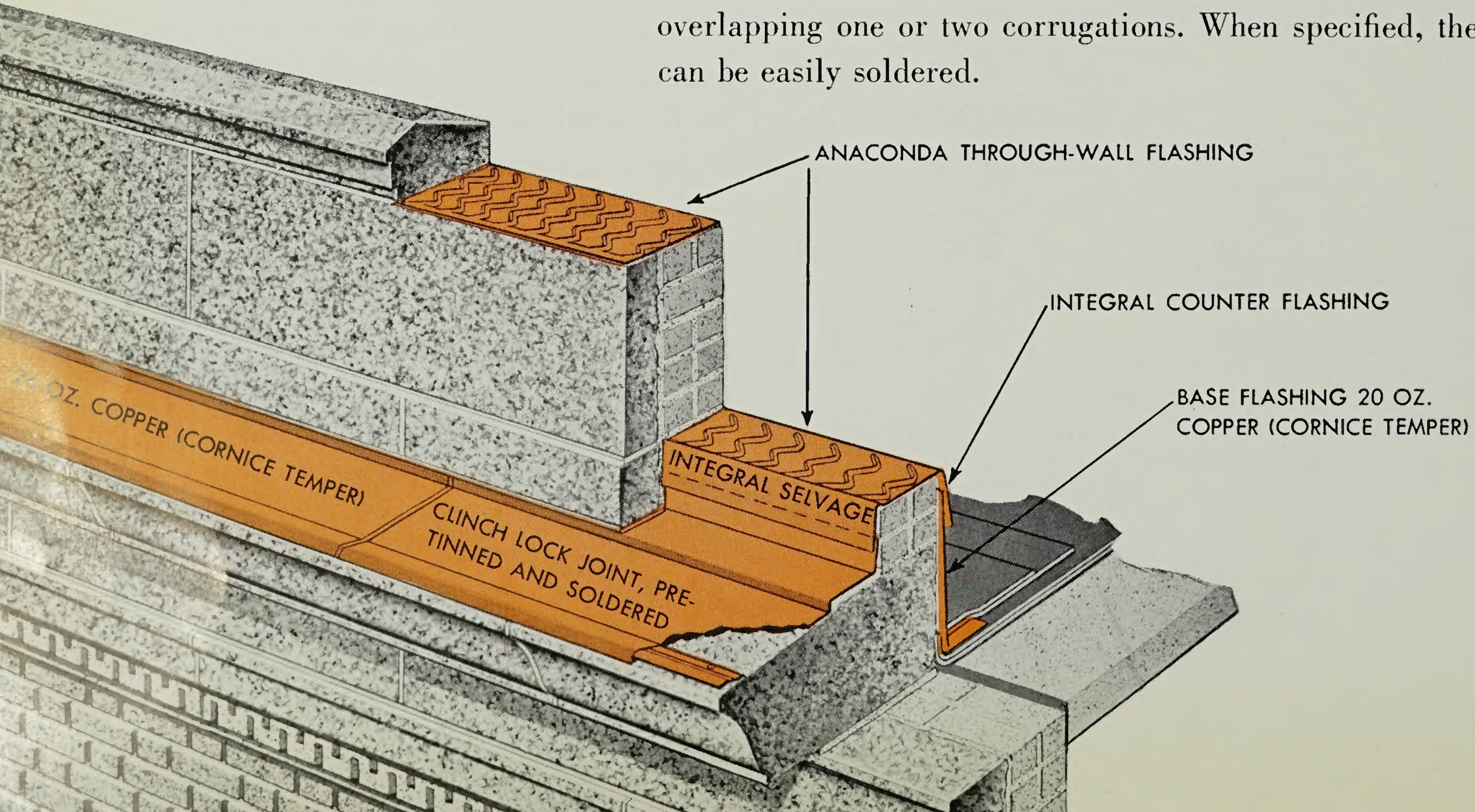
All standard types of through-wall flashing for 8″ and 12″ walls are carried in stock in eight-foot lengths. Special Anaconda Through-Wall Flashing is available on order in over-all widths up to and including 47″, with the corrugated area any width in multiples of 2″, from 8¼″ up to and including 36¼″, and the flat selvage on the dam side any width up to 4″. If open end corrugations without drain selvage are acceptable, the corrugated area of these special flashings may be obtained in any width up to 36¼″ without the restriction of being in 2″ multiples. These special flashings are also furnished in eight-foot lengths.

Because it can be bent and cut to fit on the job, Anaconda Through-Wall Flashing is installed easily and quickly, with a minimum of delay to bricklayers and masons. Tight end joints can be made by overlapping one or two corrugations. When specified, the lap joints can be easily soldered.



Inadequate flashing permitted water and frost to severely damage this masonry cornice and parapet.

With proper flashing, as shown in the drawing, such damage would have been avoided by directing the water toward the roof.

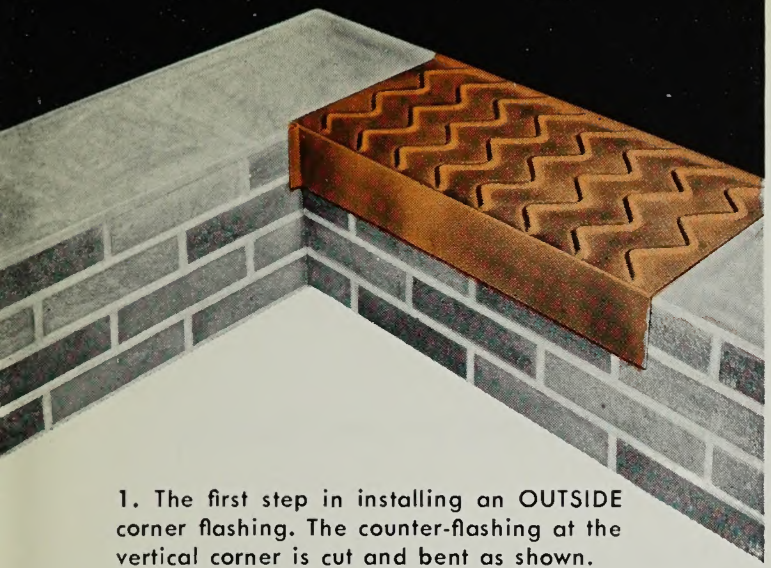

ANACONDA THROUGH-WALL FLASHING
INTEGRAL COUNTER FLASHING
BASE FLASHING 20 OZ. COPPER (CORNICE TEMPER)
24 OZ. COPPER (CORNICE TEMPER)
INTEGRAL SELVAGE
CLINCH LOCK JOINT, PRE-TINNED AND SOLDERED

Corner Flashing

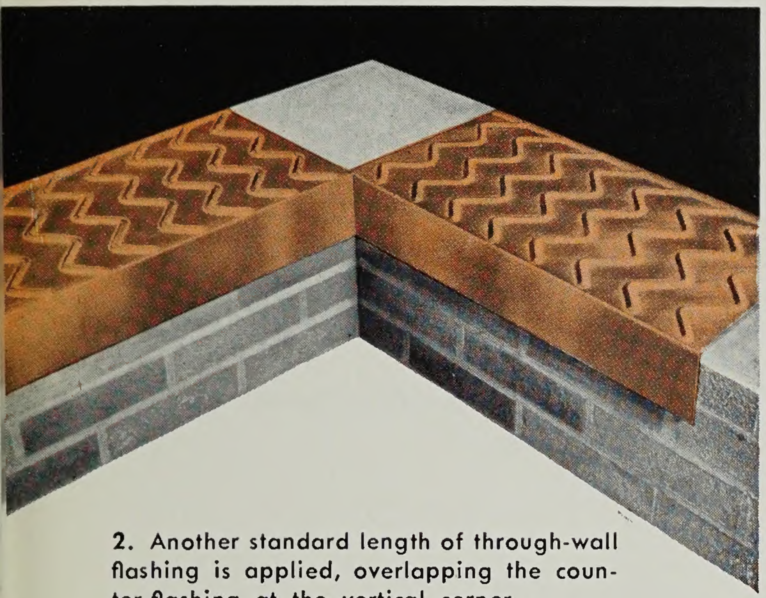
One-piece inside and outside corner flashings are available for both 8″ and 12″ walls. Both types are illustrated. They are so designed that the corrugations will interlock with those of adjoining straight flashings, thus providing the same thorough flashing at the corners of the building that straight Anaconda Through-Wall Flashing provides in the main part of the wall. These corners make a neat workmanlike job since they eliminate soldered miter joints or bulky laps.

Installation is simple. A corner is flashed by first assembling the three flashing pieces, then marking their exact position on the masonry. The pieces are then removed and a thin bed of mortar spread on the wall after which the straight flashings are laid and settled into the mortar, causing it to work up into the corrugations.

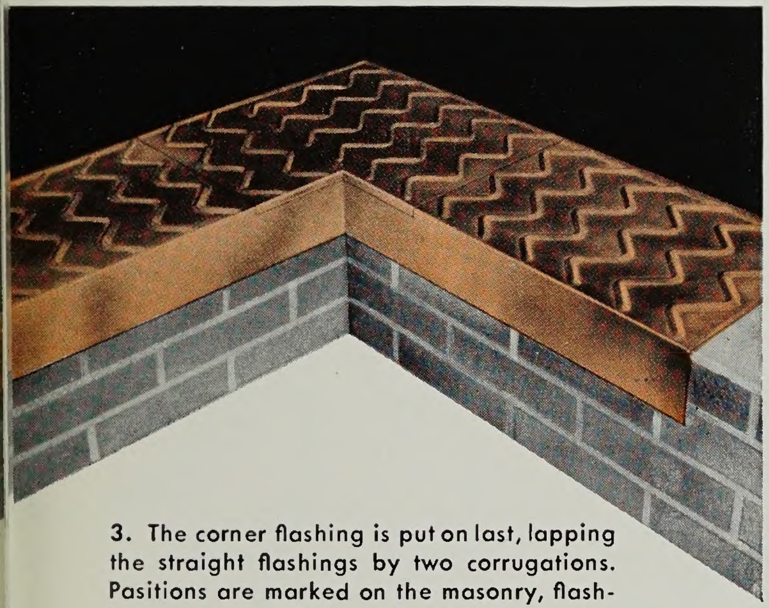
The corner flashing is put on last, lapping the straight flashings by two corrugations. The vertical corner is made water-tight by cutting and bending the counter flashing as shown in Fig. 1. On outside corners, the selvage for counter flashing is provided on the straight flashing; for inside corners, it is on the corner unit. Note that each outside corner unit has a ½″ weather lip which laps over the counter-flashing and covers the pin hole at the very corner.



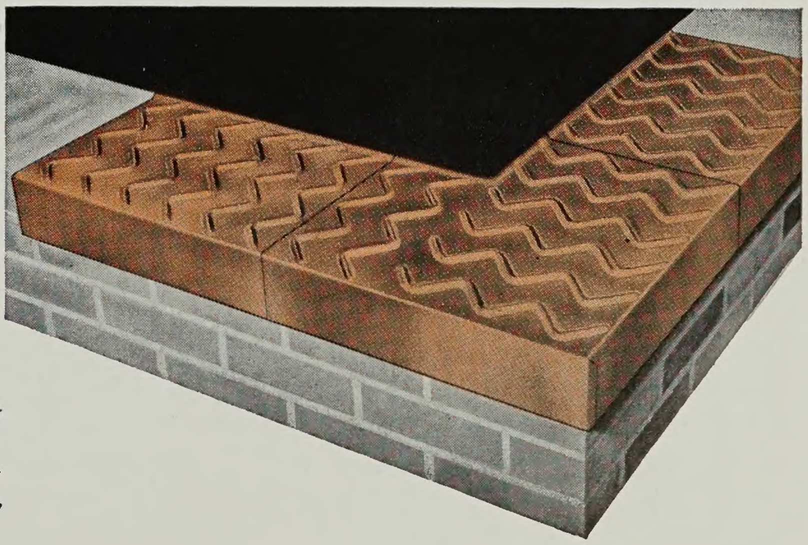
1. The first step in installing an OUTSIDE corner flashing. The counter-flashing at the vertical corner is cut and bent as shown.



2. Another standard length of through-wall flashing is applied, overlapping the counter-flashing at the vertical corner.



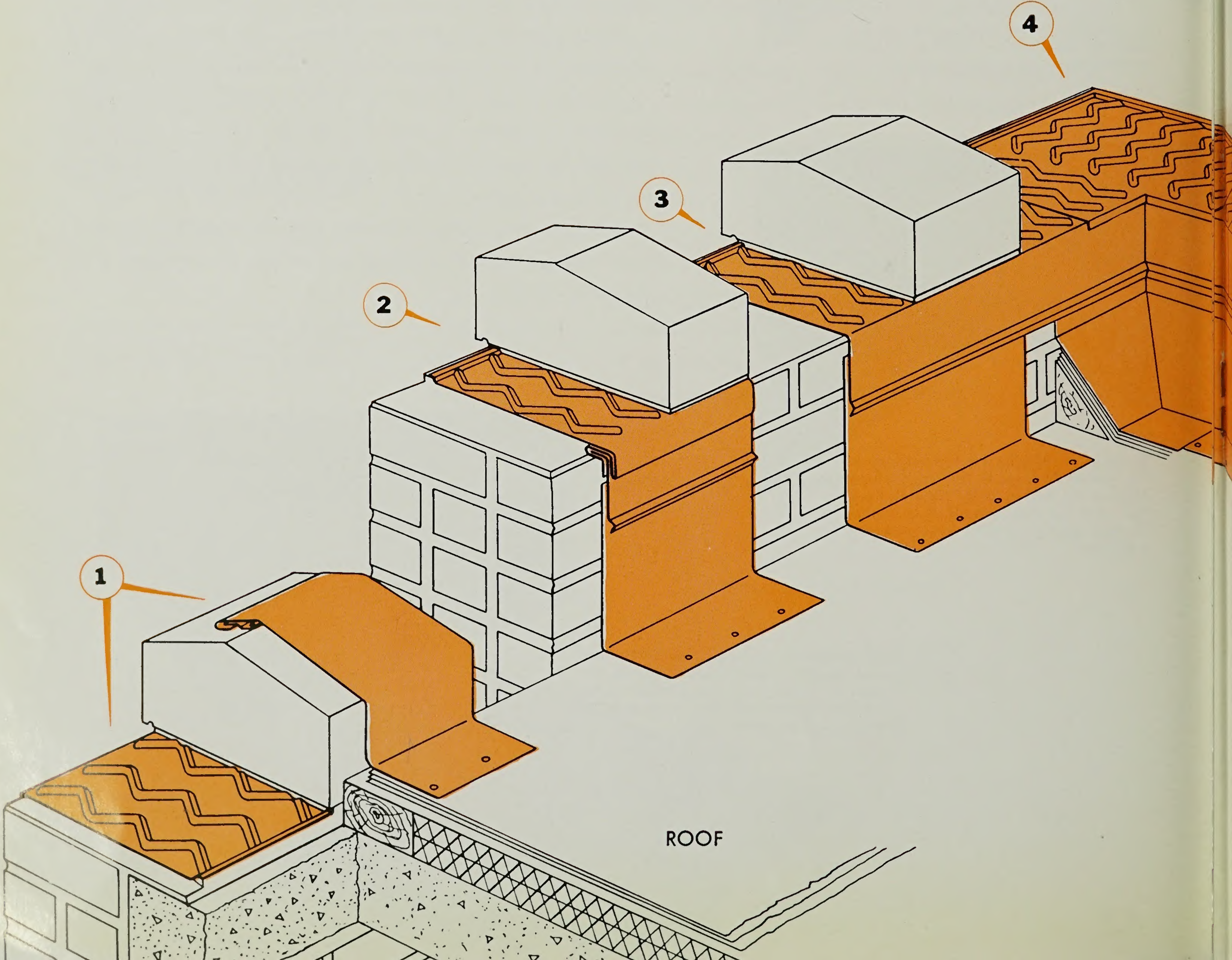
3. The corner flashing is put on last, lapping the straight flashings by two corrugations. Positions are marked on the masonry, flashings removed, then embedded in mortar. The bent down weather-lip makes assembly water-tight.

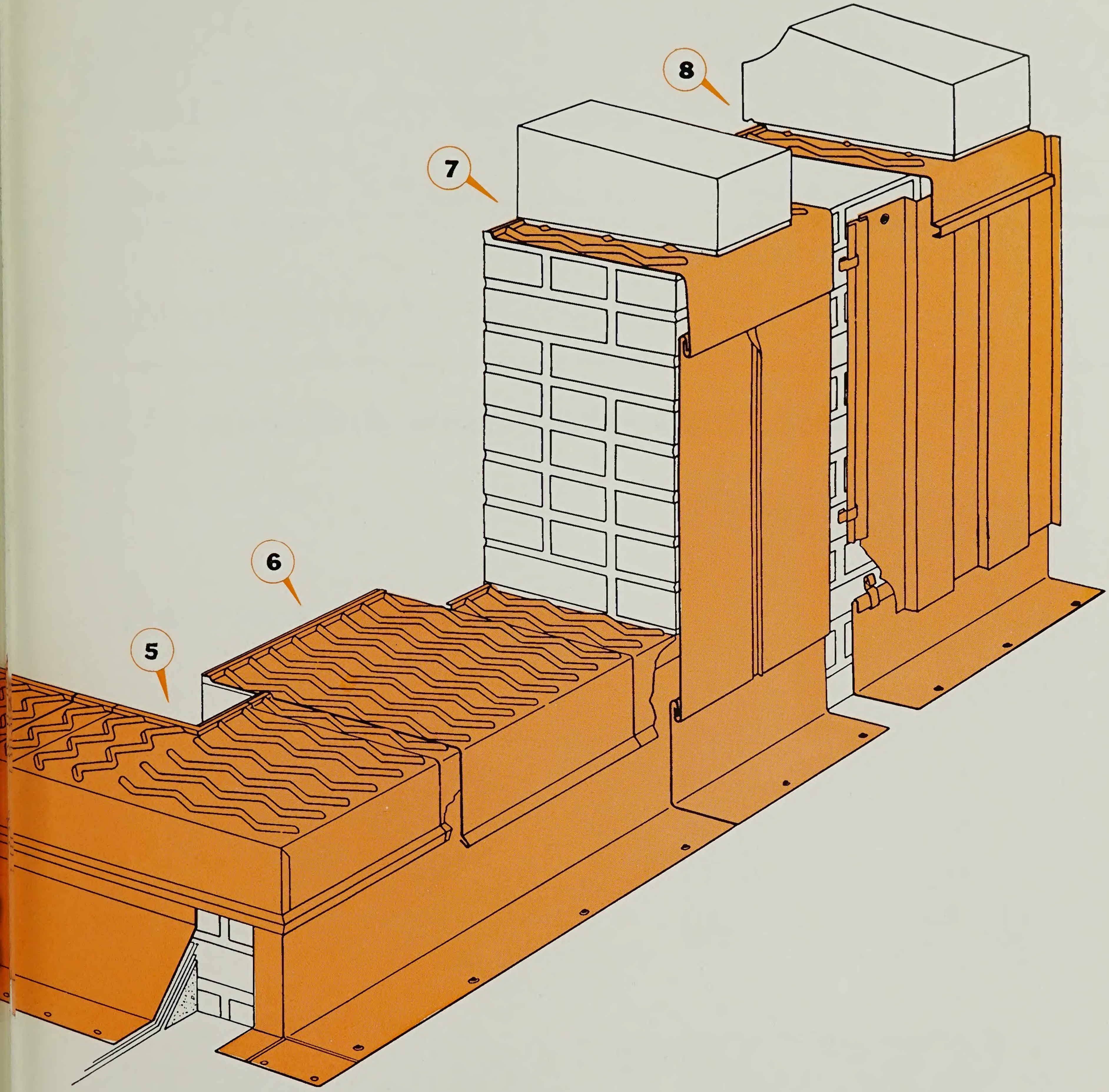


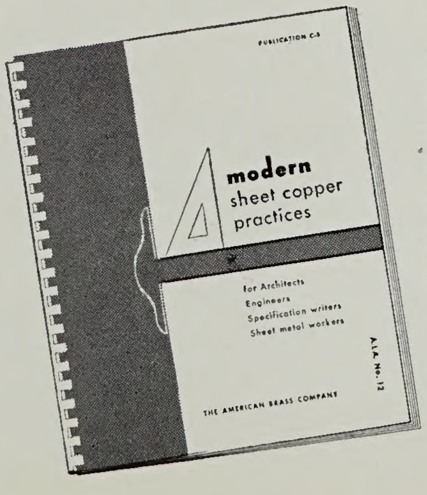
4. Completed assembly of INSIDE carner flashing. With *outside* corner flashing, selvage for counter flashing is provided on the straight flashing; with *inside* corner flashing, it is part of the corner unit.

Applications of Anaconda through-wall flashing with copper base and counter flashing above roof level

1. Through-wall flashing—base flashing and coping cover at roof line.
2. Two piece through-wall and counter flashing on low parapet.
3. One piece through-wall and counter flashing on low parapet.
4. One piece through-wall corner flashing outside corner.
5. One piece through-wall corner flashing inside corner.
6. Wide through-wall flashing for pilasters.
7. Through-wall flashing under coping, and parapet sheathing of copper, standing seam construction.
8. Through-wall coping flashing and ribbed copper parapet sheathing.






PUBLICATION C-5

modern
sheet copper
practices

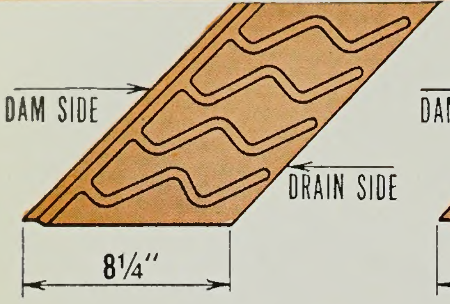
for Architects
Engineers
Specification writers
Sheet metal workers

A.I.A. No. 12

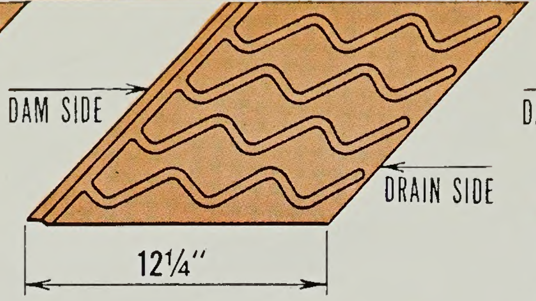
THE AMERICAN BRASS COMPANY

Drawings and specifications of flashing applications, as well as many other sheet metal construction details are contained in our new 104-page book, "Modern Sheet Copper Practices." We will be glad to send you a free copy upon written request. Address The American Brass Company, Waterbury 20, Connecticut.

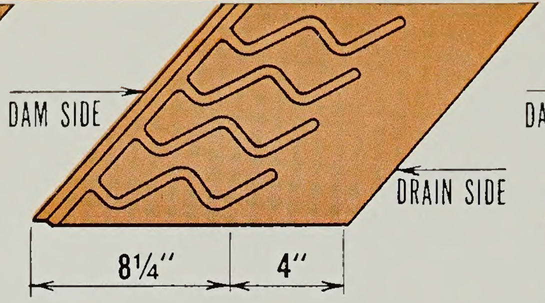
*Standard and Special Flashings**



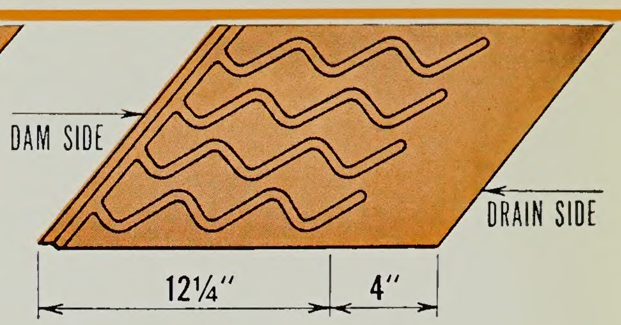
TYPE A-8 STANDARD
FLASHING FOR 8″ WALL



TYPE A-12 STANDARD
FLASHING FOR 12″ WALL



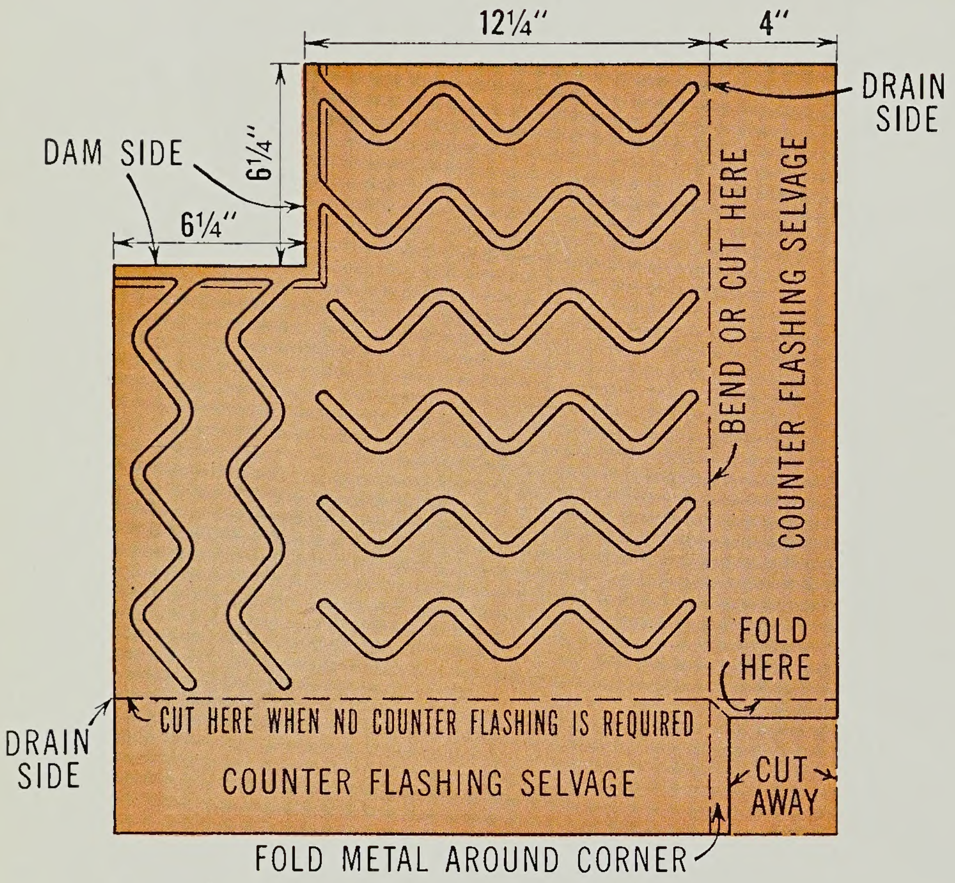
TYPE B-8 STANDARD
FLASHING FOR 8″ WALL

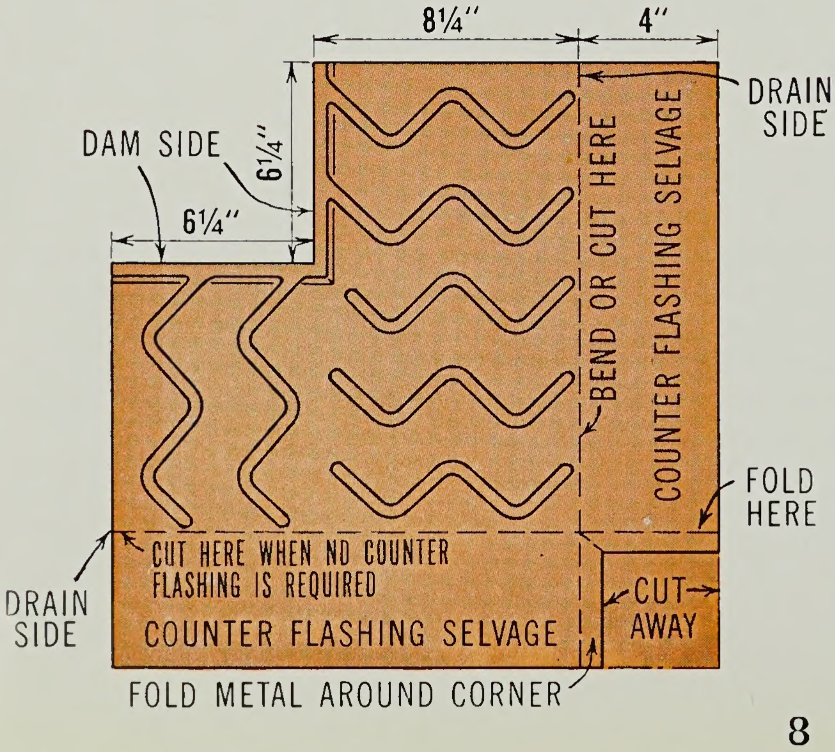


TYPE B-12 STANDARD
FLASHING FOR 12″ WALL

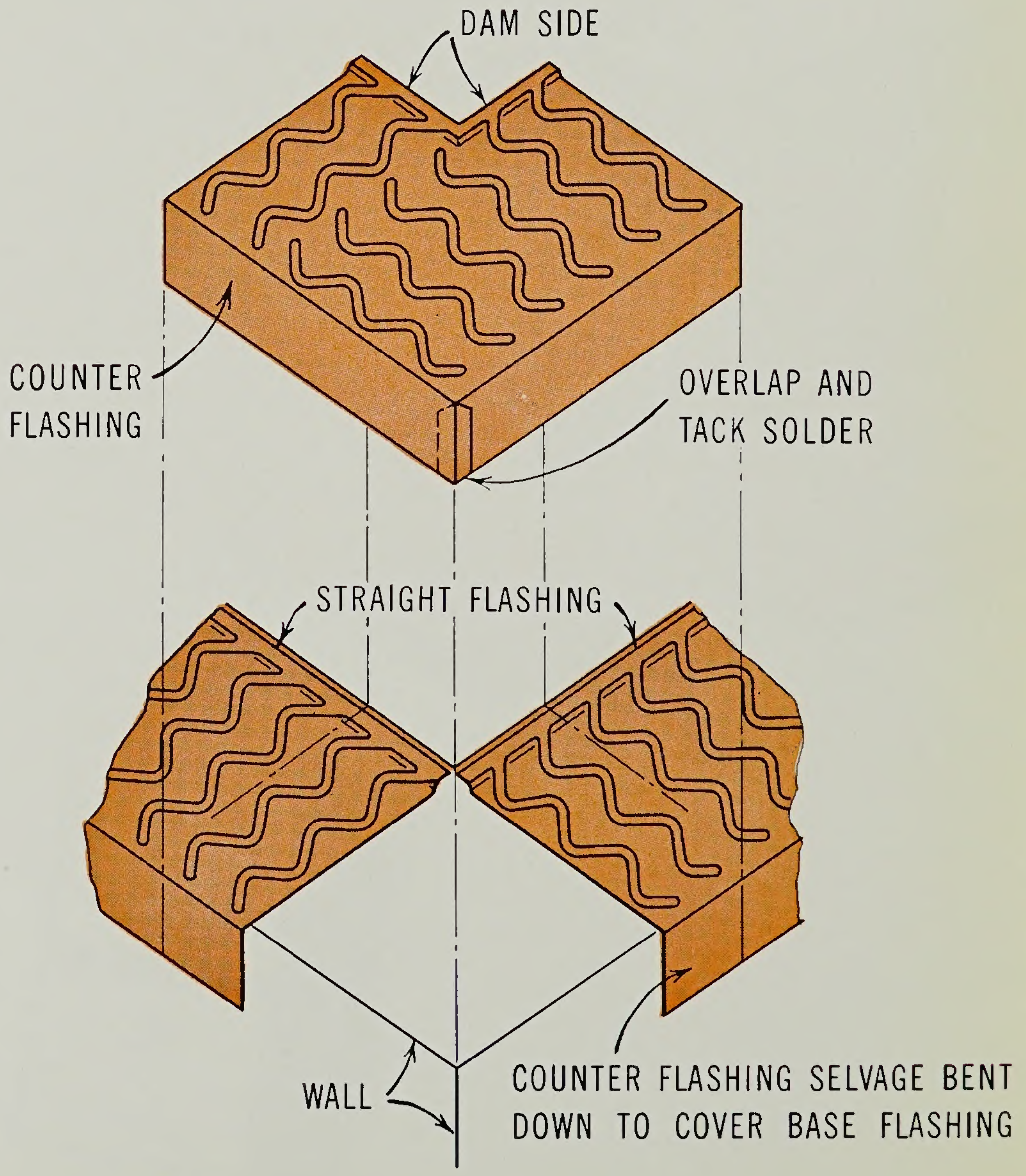
Standard one-piece Corner Flashing for

INSIDE CORNER FLASHING—DAM ON INSIDE, DRAINS OUT

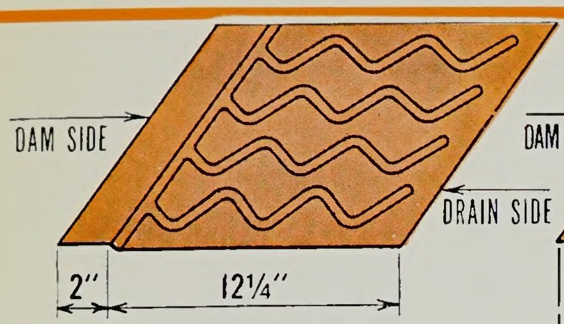




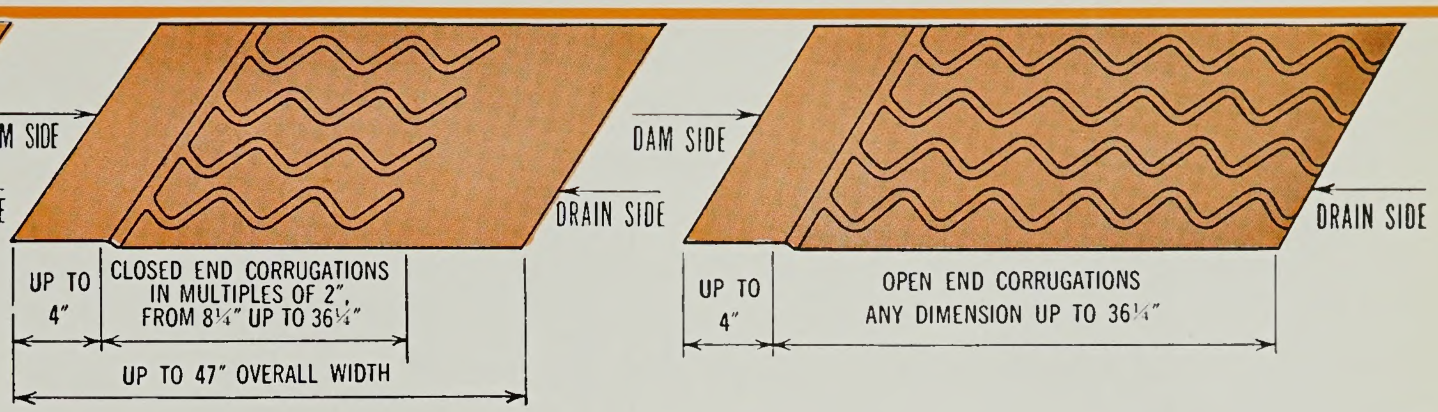
Assembly of Inside Corner Flashing



** Special Flashings are made to order.*



TYPE C-12 STANDARD SPANDREL AND LINTEL FLASHING FOR 12″ WALL ONLY

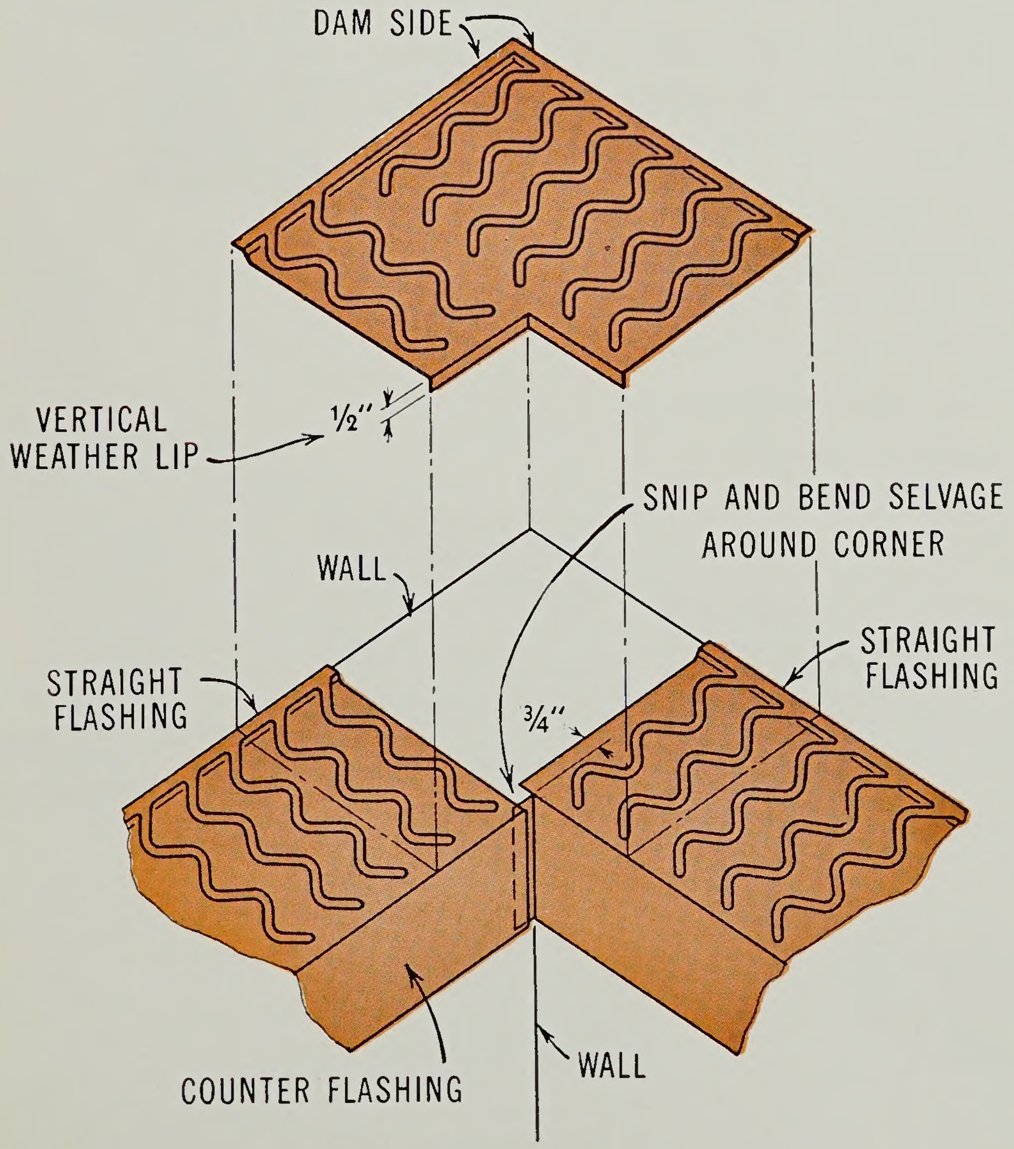

DAM SIDE
DRAIN SIDE
UP TO 4″
CLOSED END CORRUGATIONS IN MULTIPLES OF 2″, FROM 8¼″ UP TO 36¼″
UP TO 47″ OVERALL WIDTH
DAM SIDE
DRAIN SIDE
UP TO 4″
OPEN END CORRUGATIONS ANY DIMENSION UP TO 36¼″

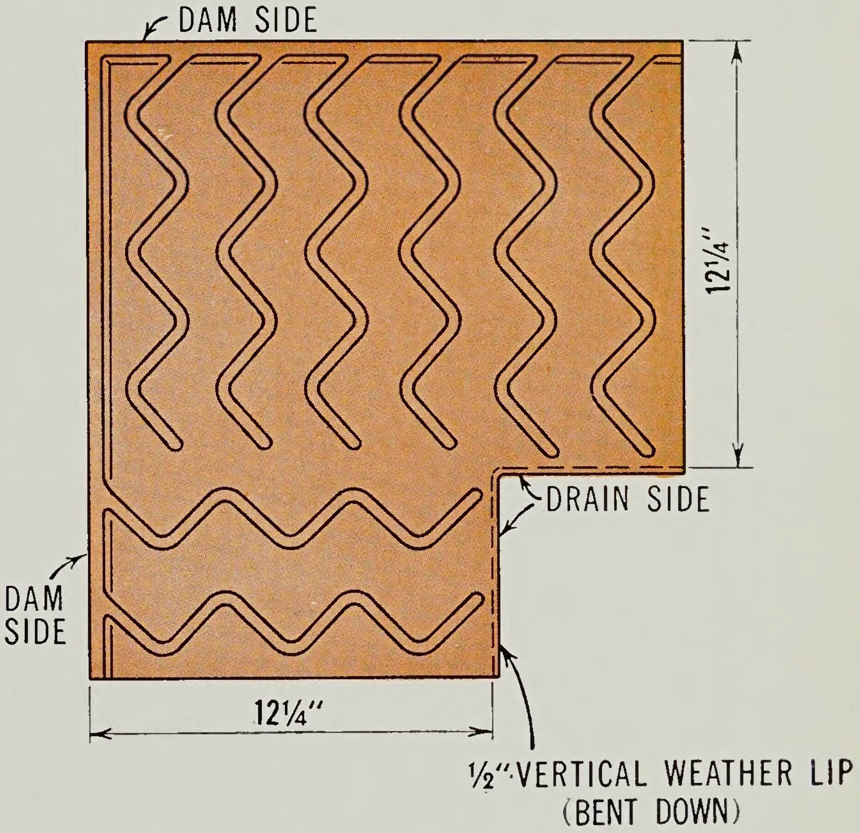
SPECIAL FLASHINGS (WITH VARIABLE CORRUGATIONS AND SELVAGES)

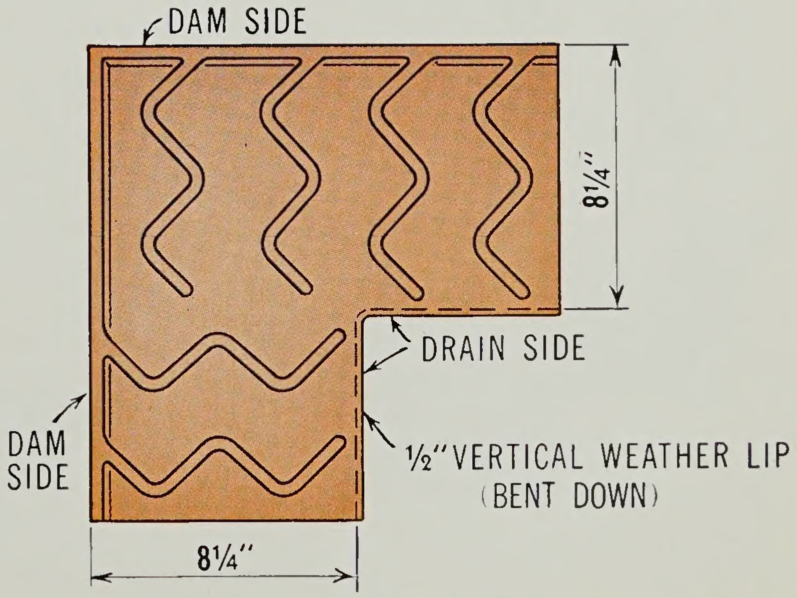
nominal 8″ and 12″ walls

OUTSIDE CORNER FLASHING—DAM ON OUTSIDE, DRAINS IN

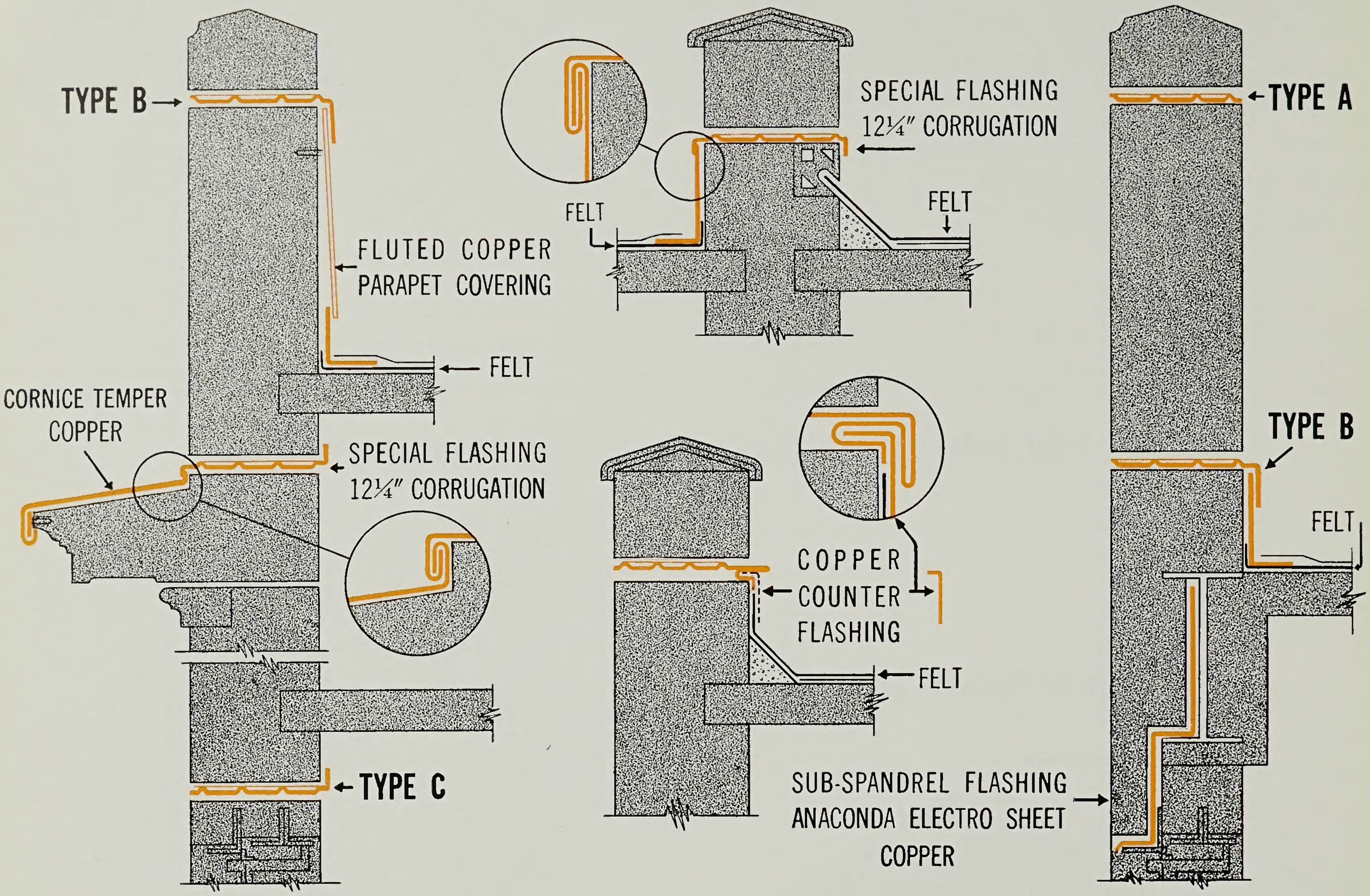
Assembly of Outside Corner Flashing



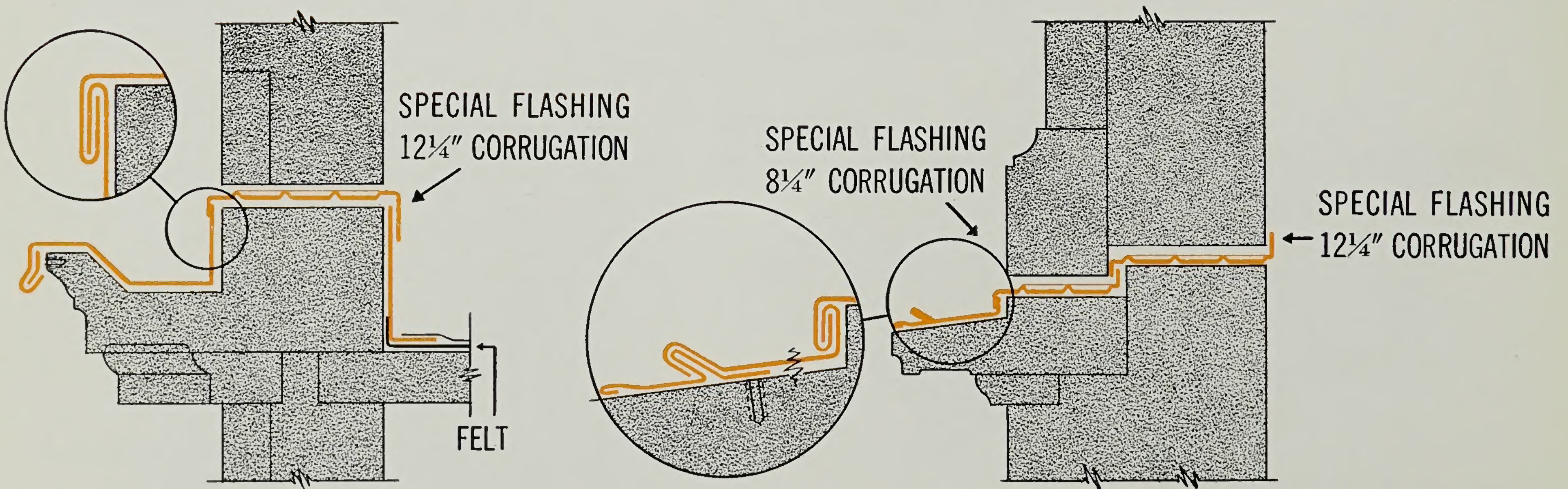




Coping and parapet details


TYPE B
FLUTED COPPER PARAPET COVERING
FELT
CORNICE TEMPER COPPER
SPECIAL FLASHING 12¼″ CORRUGATION
TYPE C
SPECIAL FLASHING 12¼″ CORRUGATION
FELT
FELT
COPPER COUNTER FLASHING
FELT
SUB-SPANDREL FLASHING ANACONDA ELECTRO SHEET COPPER
TYPE A
TYPE B
FELT

Cornice details


SPECIAL FLASHING 12¼″ CORRUGATION
FELT
SPECIAL FLASHING 8¼″ CORRUGATION
SPECIAL FLASHING 12¼″ CORRUGATION

Built-in gutters and cornice covers of copper are to have expansion joints at reasonable intervals

Through-wall flashing specification

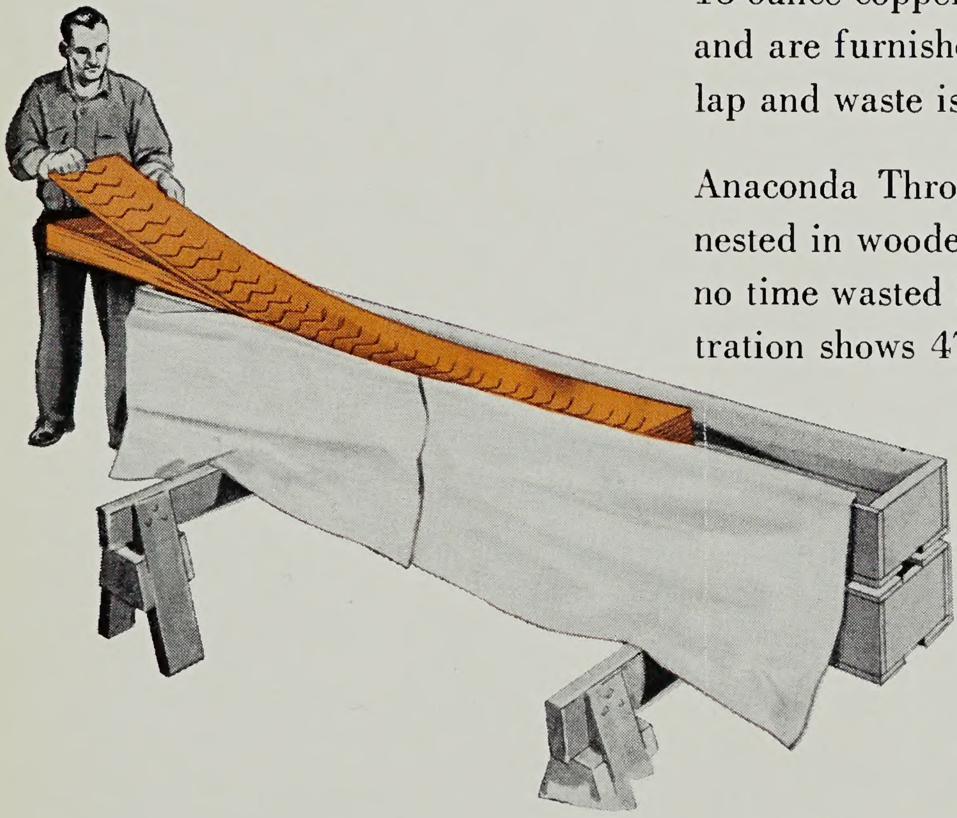
Through-wall flashing shall be of copper, formed in a manner that will shed water in the desired direction and will offer maximum resistance to horizontal movement of the masonry, particularly outward from the wall. Unless otherwise noted on the drawing the through-wall flashing is to be of sixteen ounce copper and of a pattern specially designed for through-wall flashing.

In general the through-wall flashing is to have corrugations or ribs across the flashing at 3″ intervals. These corrugations are to be a minimum of 3/16″ high and so arranged as to form a mechanical key bond with the mortar above and below the flashing to resist horizontal shear. In addition there is to be a dam at one edge, lengthwise of the flashing, also a minimum of 3/16″ high which together with the corrugations will collect and discharge the water in the proper direction. The end joints of the flashings are to be made by lapping at least one corrugation and they shall be water-tight the full height of the corrugations without solder. There are to be integral one-piece corner through-wall flashings with a weather-lip or counter flashing selvage, as required. These corner flashings are to be of the same pattern as the regular through-wall flashing.

How to order

When ordering Standard Flashings, specify the Type and width of flashing by number, i.e., A-8, B-12, etc. When ordering Special Flashings specify the width of corrugation and the width of selvage on both the dam and drain sides. Anaconda Flashings are made of 16-ounce copper weighing approximately one pound per square foot, and are furnished in eight-foot lengths. The overage factor for overlap and waste is usually taken at approximately five percent.

Anaconda Through-Wall Flashings are delivered to the job neatly nested in wooden cases, ready to lift out and lay flat on a wall, with no time wasted in straightening bends or other distortions. The illustration shows 47 flashings nested in one case.



Notice

The statements and data contained in this publication are based on extensive investigation and practical experience, and represent the best information available at time of printing, April 1956. This information is subject to change at any time principally because of new developments and changes in practice. Our Engineering Department will gladly cooperate in the solution of individual problems involving the use of Anaconda Building Products.

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